



March 30, 2007

Mr. Gary Flamm
Lighting Program Lead
California Energy Commission
1516 9th Street, Mail Stop 25
Sacramento, California 95814

Dear Mr. Flamm,

Patrick B. Quigley & Associates, Inc. (PBQA) is an Architectural Lighting Design Firm established here in California in 1985. We have worked as professional lighting designers in the state since before the introduction of the Title 24 Energy Conservation Codes and have watched their slow but steady maturation.

From our inception, PBQA has focused on responsible, energy efficient design practices. The firm won its first award for excellence in sustainable lighting design practices in 1993 for Epson Americas' Headquarters' Building. Since then, we have enjoyed being a part of design teams that have scored numerous LEED certification "firsts" for various building types – including the recently "Gold" certified Santa Monica Main Library. Besides the obvious benefits to the environment, we see Title 24 generating better, more relevant equipment for us to choose from, as well as helping us (and our California based peers) become the lighting designer(s) of choice to some of the most desirable clients in the international marketplace, i.e. high achieving, environmentally sensitive, forward thinkers. We are, in short, completely committed to what you are doing. With this in mind, we would like to offer the following constructive criticisms to the proposed changes to Title 24, as well as offer a couple of new ideas for your consideration.

- Section 150 (K) (2) (E) Blank electrical boxes in ceilings and Section 150 (K) (3) luminaire wattage

We understand that these items deal with what may be viewed as a "loophole" by the California Energy Commission (CEC) that allows abuse in terms of post inspection installation of "energy eater" fixtures. However, we are seeing contractors routinely installing the cheapest fluorescent fixtures available in kitchens and bathrooms and simply replacing them with a noncompliant fixture at a later date. This revision will encourage the same behavior at a grander scale

Our recommendation is to not allow "blanked off" electrical boxes within kitchen areas – while allowing them outside of kitchen areas only if the box is controlled by a dedicated dimmer within the same space. This will insure that the load is controlled in a way that's consistent with T-24 goals.



- Section 150 (K)) (5) Night Lights

We understand and applaud the C.E.C.'s continued push for greater energy efficiency but mandating specific lumen performance for specific lighting techniques as this proposed revision does is going down the wrong road.

We suggest returning to the core values established in previous iterations of Title 24, that is, set the watts/square foot allowance for the type of area or purpose – then let the designers and manufacturers determine how they will achieve the results. This approach is what is moving us all ahead. Banning (supposedly) outdated lamps or technologies can backfire in several ways.

For example we have recommended use of 3 and 6 watt (low efficacy) incandescent night lights that dim up and back down again via motion sensors for senior housing and convalescent hospitals as well as some residences. The result is very low energy use from a system that also allows for eye adaptation issues. The snap on and off characteristics of the more efficacious 7 or 9 watt compact fluorescent is neither as appropriate nor as energy efficient in this situation. Please – let's keep the code focused on determining an appropriate amount of energy to be used and not on prescribing lighting design strategies and technique.

- Analysis of the qualitative aspects of lighting.

We recommend that the C.E.C. work to include “qualitative” aspects of the lit environment into the code's mission. While we are completely behind the codes current purpose – and proud that our state is leading the charge in demanding energy efficient lighting design, we are also troubled by its lack of balance. Worker productivity, nighttime marketing of private enterprise, sales of goods, illumination of civic symbols and facades for wayfinding, safety and security – all have great impact on the average Californian. We must defend these needs while we pursue our energy conservation goals.

If a committee does not already exist that is charged with exploring the quality of life impact of proposed revisions to T-24, we recommend that one be created. We would like to see a written guideline (vetted by a wide cross section of Californians and lighting experts) that institutionalizes a review of Title 24 revisions for their impact on these other critical requirements of good lighting.



- Teleconference Spaces

In the continuing effort to update Title 24 to respond to the actual conditions that designers encounter in the field – we recommend that a new section be added to cover teleconference spaces.

Lighting designers have seen huge growth in the number of interior office projects requiring high quality teleconferencing facilities. Our difficulty is that the spaces typically utilized for teleconferencing are also used as board rooms, everyday meeting rooms and many times for social functions as well. The quality of illumination required for each of these functions is somewhat different, with the videoconferencing lighting being the most unique. With 1.4 watts per square foot to work with we can provide enough light for high quality cameras to transmit a decent picture, assuming that the lighting concentrates on delivering vertical foot candles on the participants faces. The problem is the resulting lighting is poorly suited to everyday meetings or to social events. Likewise, we can easily design a space at 1.4 watts per square foot that provides an excellent lit environment for meetings and social events – but that lighting system will provide only a marginal quality of light for the videoconferencing task.

We recommend that the following section be added to **Section “5.4.1 Exempt Lighting”**.

A lighting system for video conferencing is exempt providing that this lighting system is in addition to a general lighting system that is otherwise Title 24 compliant, and is controlled by a programmable multi-scene control station. To be considered a video conferencing space, a room must be equipped with a permanently mounted projection screen and professional grade camera(s). This separate and dedicated lighting system will provide a maximum of 45 vertical foot candles (vfc) on faces of participants, and a maximum of 35 (vfc) on rear and side walls. Appropriate computer generated calculations that show compliance with these limits shall be included with such a request for exemption.

We at PBQA truly appreciate your efforts and we look forward to discussing any of the above comments at your convenience.

Sincerely,

PATRICK B. QUIGLEY & ASSOCIATES, INC.

phone: 310-533-6064
fax: 310-320-3482
email: lighting @pqba.com

2340 plaza del amo
suite 125
torrance, ca 90504



PATRICK B. QUIGLEY & ASSOCIATES | architectural lighting
consultants

Patrick B. Quigley
PRINCIPAL

phone: 310-533-6064
fax: 310-320-3482
email: lighting @pqba.com

2340 plaza del amo
suite 125
torrance, ca 90504